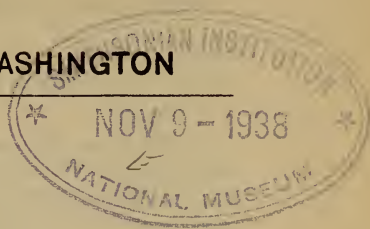


PROCEEDINGS  
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NOTES ON "NECTOPHRYNE."

BY T. BARBOUR.

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I doubt whether there has ever been a more unnatural assemblage than the toads which have been assigned to this genus. Two species, occurring together in Cameroon and Spanish Guinea, are alike and obviously related and one of these is the type of the genus, *Nectophryne afra* Buchholtz and Peters. The other is *N. batesi* Boulenger. These differ from all the others in the structure of fore and hind extremities.

*Nectophryne parvipalmata* Werner, which its describer suspected also to come from Cameroon and which may have, though there is no certainty of this, is obviously no *Nectophryne* at all. It is probably a *Cardioglossa* but Werner's figure leaves much to be desired.

The status of *Nectophryne werthi* Nieden is equally unsatisfactory and, while the allocation is by no means certain, it may as well continue to rest in the synonymy of *Nectophrynoides tornieri* (Roux). (Cf. Barbour and Loveridge, Mem. Mus. Comp. Zool. 51, no. 2, December 1928, p. 188.)

Noble helped greatly in clarifying the whole situation when he showed that *Nectophryne gardineri* Boulenger from the Seychelles Islands was really a *Sooglossus*. (Amer. Mus. Novit. 212, 5 May 1926, p. 12.) This leaves for consideration two species from India, and others from the Malayan region proper and from the Philippine Islands. These are surely more closely related, one to another, than they are to the African species. Nevertheless these fall into two genera, a fact which I had never suspected until I asked my generous friend Mr. H. W. Parker of the British Museum to examine the types under his care. He was good enough to have X-ray photographs made of seven of these, as well as of a specimen of "*N. misera*" Mocquard. He points out in his letter, and the sciagraphs abundantly support his statement, that these fall into two groups.

For the first of these the name *Pedostibes* is available, based on *Pedostibes tuberculosus* Günther (P. Z. S. 1875, p. 576, pl. 64, type locality Malabar, India, Beddome Coll. 2 types in British Museum).

Allied to this form are

*Pedostibes hosii* (Boulenger).

(P. Z. S. 1892, p. 508, pl. 30, fig. 2, from Mt. Dulit, types in British Museum.)

A large wide-ranging species represented in the Museum of Comparative Zoology from Langkat on the east coast of Sumatra and from several localities in Siam, M. Smith Coll. It is also known from the Malay Peninsula and a number of localities in Borneo. For list of specimens in the British Museum cf. Roux on "Toads of the Genus *Nectophryne*" (P. Z. S. 1906, vol. 1, p. 59).

*Pedostibes everetti* (Boulenger).

(Ann. Mag. Nat. Hist. (6), vol. 17, 1896, p. 450.)

This form was based on a single female specimen in the British Museum from Mt. Kinabalu. It was not found by Chasen during his intensive collecting on that mountain in 1929 nor by Griswold, of the M. C. Z., who made very large and complete collections there in 1937. Also known from Mt. Penrisen, *vide* Roux. (l.c. p. 62, pl. 2, fig. 2.)

*Pedostibes altitudinis* (Malcolm Smith).

(Bull. Raffles Museum, Singapore, no. 5, August 1931, pl. 14.)

The type is now in the British Museum, from 7,000 to 10,000 feet altitude on Mt. Kinabalu, also unique so far as I know.

To these four species, of which I have sciagraphs, thanks to Doctor Parker, it is probable that another should be added.

*Pedostibes kempfi* (Boulenger).

(Rec. Indian Museum, vol. 16, 1919, p. 207, found at Tura in the Garo Hills of Assam, type not mentioned by Parker as being in the British Museum, hence probably still preserved in Calcutta.)

It has never been figured and so far as I know has been collected this once only.

The four species of *Pedostibes* first mentioned and possibly this fifth one as well are alike in all having eight presacral vertebrae and in having the coccy articulated by two small but distinctly separated condyles.

For certain other forms I propose the generic name of

***Pelophryne*, gen. nov.**

the genotype *P. albotaeniata* from Palawan (*vide infra*).

In this form, as in certain others, there are usually seven and perhaps occasionally six presacral vertebrae, the coccyx is fused to the sacrum, and Mr. Parker notes also the presence of coccygeal expansions more or less similar to those figured by Noble for *Oreophrynella* (cf. *Biology of the Amphibia* 1931, p. 505, figure 164). These, however, are difficult to observe in the sciagraphs.

Besides this new form *Pelophryne* is to include

*Pelophryne misera* (Mocquard).

(Nouv. Arch. Mus. d'Hist. nat. (3), vol. 3, 1890, p. 161, pl. 11, fig. 7, types three badly preserved in the Paris Museum, simply labelled North Borneo.)

Chasen, however, took a large number on Mt. Kinabalu in 1929 between 7,000 and 10,500 feet. Parker's sciagraph is not quite clear but it looks very much as if there were only six presacral vertebrae in this species.

*Pelophryne macrotis* (Boulenger).

(Ann. Mag. Nat. Hist. (6), vol. 16, 1895, p. 171, types in the British Museum, two specimens taken by Charles Hose on the Akar River in northern Sarawak).

It apparently has not been found since.

*Pelophryne guentheri* (Boulenger).

(Cat. of Batrachia Saliencia 1882, p. 280, pl. 18, fig. 3).

The holotype was one of the cotypes of Günther's *Bufo leptopus*, which came from Matang in Borneo. The species is represented in the M. C. Z. by a series of five specimens received from the Sarawak Museum in 1913 and presumably taken in the vicinity of Kuching. Van Kampen, in his "Amphibia of the Indo-Australian Archipelago" (Brill, Leiden 1923, p. 69) records this species also from Sipora in the Mentawai Islands, from Sumatra, from Serasan in the Natuna Group, from Singapore, and the Philippines; the latter locality, however, is based on the hopelessly inaccurate catalogue of d'Elera and the record certainly need not be considered.

*Pelophryne signata* (Boulenger).

(P. Z. S. 1894, p. 645, pl. XL, fig. 1, based on two specimens in the British Museum from Mt. Robong in the Kapuas District, Dutch South Borneo, A. Everett Coll.)

Of these species, as of the three preceding, I have sciagraphs made at the British Museum.

The allocation is by no means certain but the following may also belong here:

*Pelophryne maculata* (Mocquard).

(Nouv. Arch. Mus. d'Hist. nat. (3), vol. 3, 1890, p. 162, pl. 11, fig. 8, apparently known only from the three cotypes in the Paris Museum from Mt. Kinabalu.)

As this form is said to have a hidden tympanum it may turn out not to be congeneric with any of the others.

It is more probable that here also belong these two:

*Pelophryne lighti* (Taylor).

(Philippine Jour. of Science, vol. 16, pt. 3, March 1920, p. 339, pl. 7, figs. 7 and 32.)

Apparently known only from the type taken at Bunawan, Aguasan, Mindanao.

*Pelophryne brevipes* (Peters).

(Monatsb. Berlin Mus., 1867, p. 37.)

This species has long been considered a *Bufo*, apparently known only from Semper's two cotypes taken years ago at Zamboanga, Mindanao. It is, however, represented in the M. C. Z. by a specimen which Taylor secured 18 Oct. 1923, at Abung Abung on the Island of Basilan.

Van Kampen concluded that *Nectophryne sundana* Boulenger was probably a *Kaloula*, but Parker, however, has, upon excellent evidence, set up the genus *Metaphrynella* to include this species and what has been called *Phrynella pollicaris* (The Microhylidae, British Museum, London, 1934, p. 108).

Malcolm Smith's *Nectophryne picturata* (Jour. Fed. Malay States Mus. vol. 10, 1921, p. 199, pl. 2, fig. 2) I had already allocated as being the same as *Microhyla leucostigma* Boulenger, but Parker (loc. cit. p. 103) has shown that this form should be called *Chaperina fusca*.

The genotype, which is from Palawan, may be called

***Pelophryne albotaeniata*, sp. nov.**

*Type*.—Mus. Comp. Zool. no. 23291; taken at an altitude of 4500 ft. on Thumb Peak, Palawan, 17 October 1923, by Edward H. Taylor.

*Diagnosis*.—A small species with long and slender limbs and a heavily tuberculate dorsum, a white line along each side of the middorsal area and a heavy black midventral blotch. The toes are extensively webbed and the fingers are thick, flat, somewhat webbed and with large, flat tubercles beneath.

*Description*.—Habit rather slender; head as broad as long; snout rather short, truncate, but with a distinct and rather sharp median projection; canthus rostralis ill defined; loreal region vertical but deeply concave; interorbital space more than twice as broad as the upper eyelid; tympanum large, very distinct, round, about half the diameter of the eye. Forelimbs long and slender; fingers flattened, not swollen at the tips, which are slightly rounded, slightly webbed at base; hind limbs long and slender; toes flattened, extensively webbed with unexpanded tips; plantar surface with a large, flat, ill-defined tubercle; subarticular tubercles flat and ill defined; a well-defined tarsal fold; the tarso-metatarsal articulation reaches the tip of the snout; top of head, dorsum and sides and upper surfaces of limbs coarsely granular or warty; warts of the back mostly small and tending to be conical but not spinose, those of sides larger and flatter; a small, round, rather ill defined parotoid gland on each side above the insertion of the forelimb.



Fore and hind limb of *Pelophryne albotaeniata*.

*Color*.—Rich mahogany brown above with a white dorsolateral line extending from above the eye almost to the groin, broken up anteriorly but continuous and broader from the nuchal region backward; limbs more mottled above than cross-banded; ventral surfaces white with a large, dark brown midventral spot and several other smaller blotches along the sides of the belly.

*Measurements*.—Snout to vent 18.5 mm.; breadth of head 5 mm.; forelimb 14.5 mm.; hind limb 21.5 mm.

I have to thank my colleague, Mr. Arthur Loveridge, for suggesting that I go into the *Nectophryne* question before describing Taylor's new form. I should have insisted that he do this himself had he not been on the point of leaving for Africa to be absent a year. My friendly colleague, Mr. H. W. Parker of the British Museum, has, of course, played a more important part in settling this rather knotty question than I have myself, for without his shrewd observations on the splendid series of types in the British Museum, it would not have been possible to come to the conclusions that I have drawn.

